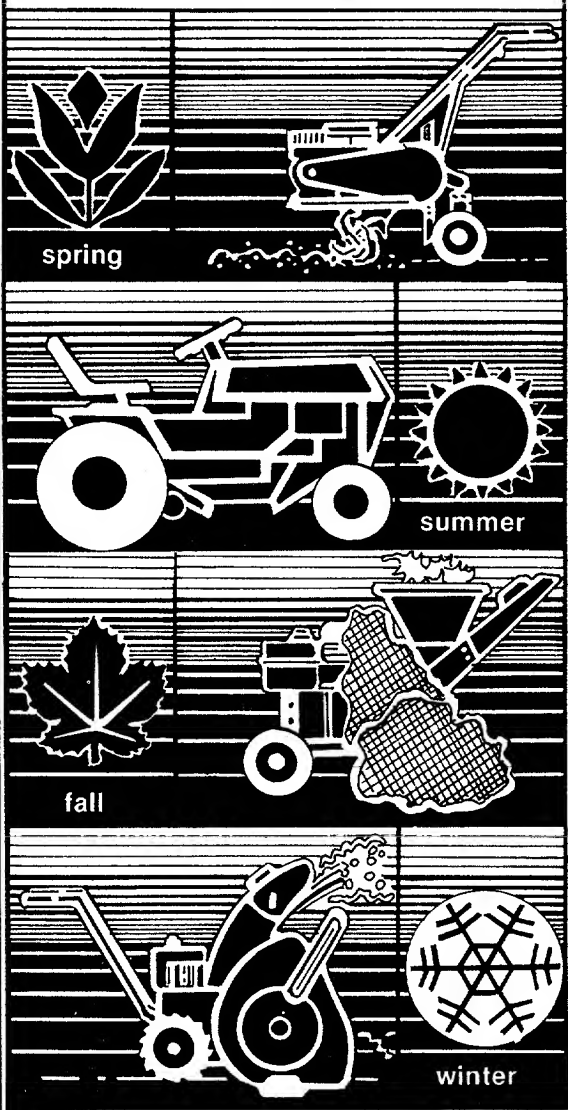


OWNER'S GUIDE

OUTDOOR POWER EQUIPMENT
for all seasons



**3 H.P.
EDGER**

**Model Numbers
245-604-000
24604S**

**Important:
Read Safety Rules and
Instructions Carefully**

Thank you for purchasing
an American-built product.

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Instructions given with this symbol are for personal safety. Be sure to follow them.

LIMITED WARRANTY

For one year from the date of original retail purchase, MTD PRODUCTS INC will either repair or replace, at its option, free of charge, F.O.B. factory or authorized service firm, any part or parts found to be defective in material or workmanship. Transportation charges for the movement of any power equipment unit or attachment are the responsibility of the purchaser. Transportation charges for any parts submitted for replacement under this warranty must be paid by the purchaser unless such return is requested by MTD PRODUCTS INC.

This warranty will not apply to any part which has become inoperative due to misuse, excessive use, accident, neglect, improper maintenance, alterations, or unless the unit has been operated and maintained in accordance with the instructions furnished. This warranty does not apply to the engine, motor, battery, battery charger or component parts thereof. Please refer to the applicable manufacturer's warranty on these items.

This warranty will not apply where the unit has been used commercially.

Warranty service is available through your local authorized service dealer or distributor. If you do not know the dealer or distributor in your area, please write to the Customer Service Department of MTD.

The return of a complete unit will not be accepted by the factory unless prior written permission has been extended by MTD.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.



WARNING

This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester muffler is available at your nearest engine authorized service center.



WARNING

To reduce the potential for any injury, comply with the following safety instructions. Failure to comply with the instructions may result in personal injury.

SAFE OPERATION PRACTICES FOR EDGERS

TRAINING

1. Read this owner's manual carefully in its entirety before attempting to assemble or operate this machine. Be completely familiar with the controls and the proper use of this machine before operating it. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
2. Your edger is a precision piece of power equipment, not a plaything. Therefore, exercise extreme caution at all times.
3. Never allow children to operate a power edger. Only persons well acquainted with these rules of safe operation should be allowed to use your edger.
4. Keep the area of operation clear of all persons, particularly small children and pets. Stop engine when they are in the vicinity of your edger. Although the area of operation should be completely cleared of foreign objects, an object may have been overlooked and could be accidentally thrown by the edger in any direction and cause serious personal injury to the operator or any others allowed in the area.
No one should operate this unit while intoxicated or while taking medication that impairs the senses or reactions.

PREPARATION

1. Thoroughly inspect the area where the equipment is to be used. Remove all stones, sticks, wire, bones and other foreign objects which could be picked up and thrown by the edger in any direction and cause serious personal injury to the operator or any others allowed in the area.
2. Do not operate equipment when barefoot or wearing open sandals. Always wear substantial footwear.
3. Check the fuel before starting the engine. Gasoline is an extremely flammable fuel. Do not fill the gasoline tank indoors, while the engine is running, or while the engine is still hot. Wipe off any spilled gasoline before starting the engine as it may cause a fire or explosion.
4. Disengage the blade clutch on units so equipped before starting the engine.
5. Never attempt to make a wheel adjustment while the engine is running.
Never operate the equipment in wet grass. Always be sure of your footing. A slip and fall can cause serious personal injury. Keep a firm hold on the handle and walk, never run.

OPERATION

1. Never operate this edger unless wearing safety glasses or some other suitable eye protection at all times the engine is running.
2. Do not change the engine governor settings or overspeed the engine.
3. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times as the rotating blade can cause injury.
4. Stop the blade when crossing gravel drives, walks or roads.
5. After striking a foreign object, stop the engine, remove the wire from the spark plug, and thoroughly inspect the edger for any damage. Repair the damage before restarting and operating the edger.
6. If the equipment should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
7. Stop the engine whenever you leave the equipment, before cleaning the guard assembly, and when making any repairs or inspections.
8. Before cleaning, repairing or inspecting, make certain the blade and all moving parts have stopped. Disconnect the spark plug wire, and keep the wire away from the spark plug to prevent accidental starting.
9. Do not run the engine indoors.
10. Shut the engine off and wait until the blade comes to a complete stop before unclogging guard assembly.
11. Never operate edger without proper guards, plates or other safety protective devices in place.
12. Always operate the edger so that the protective guard guide is positioned between the walk and the rotating blade. Never allow the rotating blade to operate directly against concrete walk or drive.

MAINTENANCE AND STORAGE

1. Check the blade and engine mounting bolts at frequent intervals for proper tightness.
2. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
3. Never store the equipment with gasoline in the tank inside of a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.
4. To reduce fire hazard, keep the engine free of grass, leaves, or excessive grease.



NOTE

This unit is shipped WITHOUT GASOLINE or OIL. After assembly, see operating section of this manual for proper fuel and engine oil recommendations.

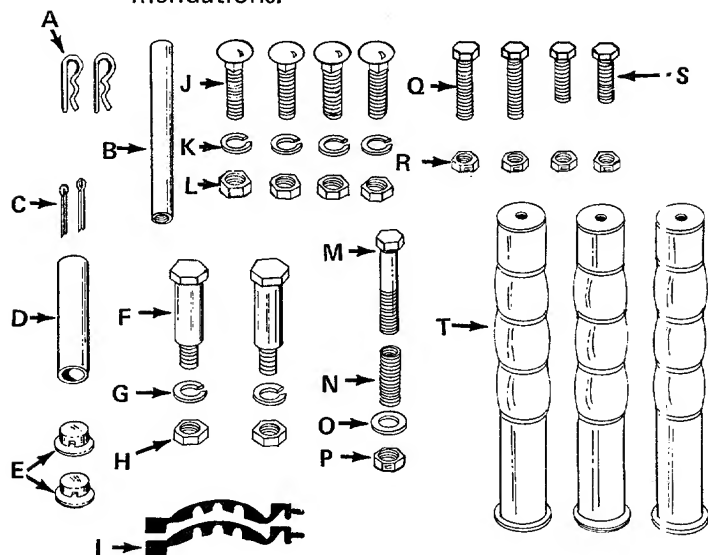


FIGURE 1

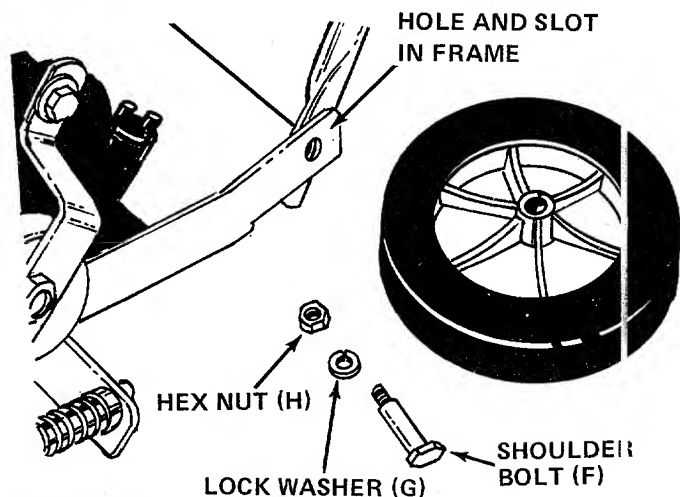


FIGURE 2

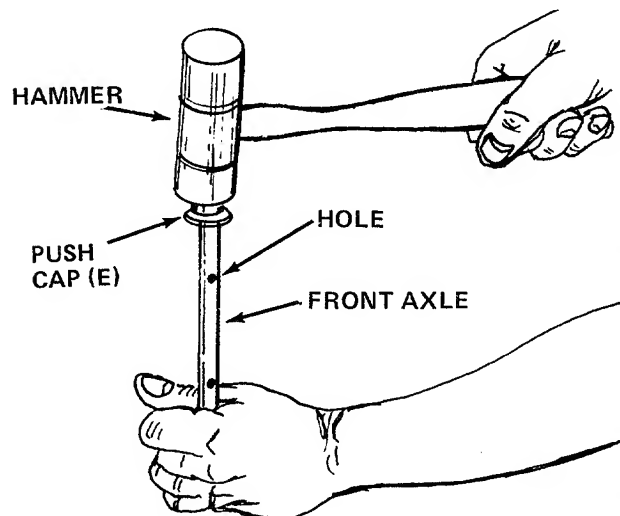


FIGURE 3

ASSEMBLY INSTRUCTIONS



NOTE

Any reference to right and left hand will be determined from behind the edger, in the operator's position.

TOOLS REQUIRED:

- A (1) Adjustable Wrench.
- B (1) 7/16" Open End or Box Wrench.
- C (1) 9/16" Open End or Box Wrench.
- D (1) Pair of Pliers.
- E (1) Hammer
- F (1) Block of Wood.

CONTENTS OF HARDWARE PACK: (See Figure 1)

- A (2) Hair Pin Cotter
- B (1) Rod Adjustment Link
- C (2) Cotter Pins 1/8" Dia. x 1.00" Long
- D (1) Spacer .50" I.D. x .62" O.D. x 1.62" Long
- E (2) Push Caps
- F (2) Shoulder Bolts (Rear Axles)
- G (2) Lock Washers 3/8" I.D.
- H (2) Hex Nuts 3/8-16 Thread
- I (2) Cable Ties
- J (4) Carriage Bolts 1/4-20 x 1.25" Long
- K (4) Lock Washers 1/4" I.D.
- L (4) Hex Nuts 1/4-20 Thread
- M (1) Hex Bolt 5/16-18 x 1.75" Long
- N (1) Compression Spring
- O (1) Flat Washer
- P (1) Hex Center Lock Nut 5/16-18 Thread
- Q (2) Hex Bolts 1/4-20 x 1.25" Long
- R (4) Hex Center Lock Nuts 1/4-20 Thread
- S (2) Hex Bolts 1/4-20 x 1.00" Long
- T (3) Grips

1. Remove the edger and all parts from the carton. Make certain that all loose parts and literature are removed from carton before carton is discarded.
2. Line up holes in lower handle with holes in frame. Secure rear wheels (larger) and lower handle to frame with shoulder bolts (F), lock washers (G) and hex nuts (H). See figure 2.
3. Using a hammer, tap one push cap (E) onto the end of the front axle which has a hole closer to it. See figure 3.

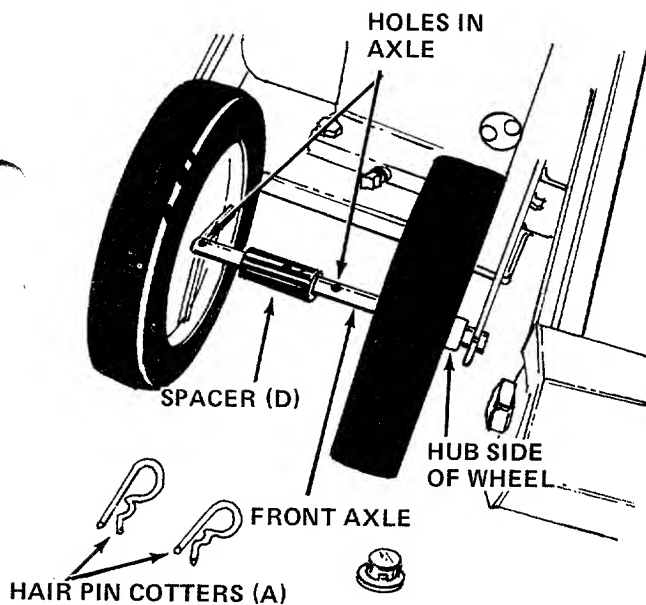


FIGURE 4

4. Starting on the right side of the edger, place the axle through the support arm on the frame. Then place axle through one wheel so the hub of the wheel is to the outside of the unit. Next place axle through spacer (D), the other wheel (hub to the outside of the unit) and through second support arm. See figure 4. Secure with push cap (E) by tapping it on with a hammer. See figure 5. It is necessary to hold a block of wood or a second hammer against the push cap on the other side of the axle.

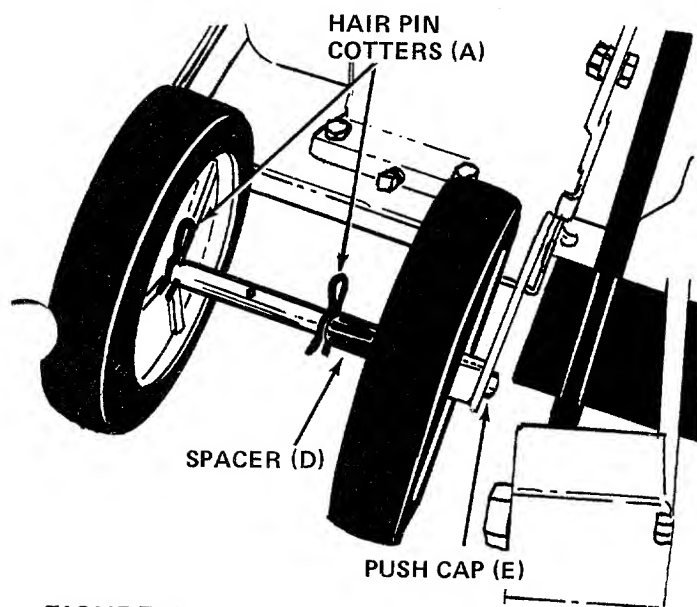


FIGURE 5

5. Secure the front wheels and axle in position using two hairpin cotters (A). See figure 5.

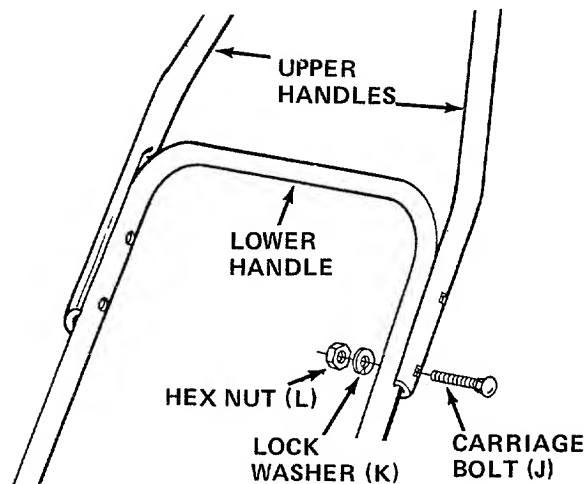


FIGURE 6

6. Slip the three handle grips (T) on the upper handles and the engagement handle. They will slip on more easily if you first soak them in warm, soapy water.
7. Assemble the two upper handles to the lower handle with four carriage bolts (J), lock washers (K) and hex nuts (L). Tighten only finger tight at this time. See figure 6.

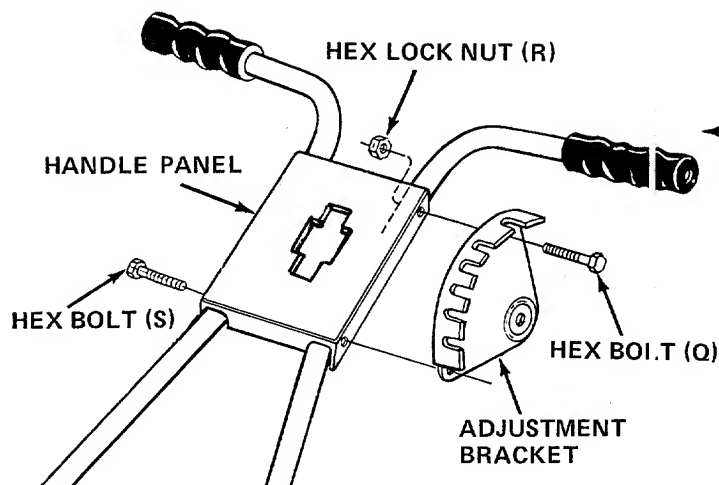


FIGURE 7

8. Place the handle panel over the upper handles and line up the holes. See figure 7.
9. Secure the right hand side of handle panel with two one-inch long hex bolts (S) and hex lock nuts (R). Do not tighten.
10. Secure the adjustment bracket to the left hand side of handle panel with 1-1/4 inch long hex bolts (Q) and hex lock nuts (R). See figure 7.
11. Now tighten securely all four bolts and nuts at handle panel and four bolts and nuts at lower handle.

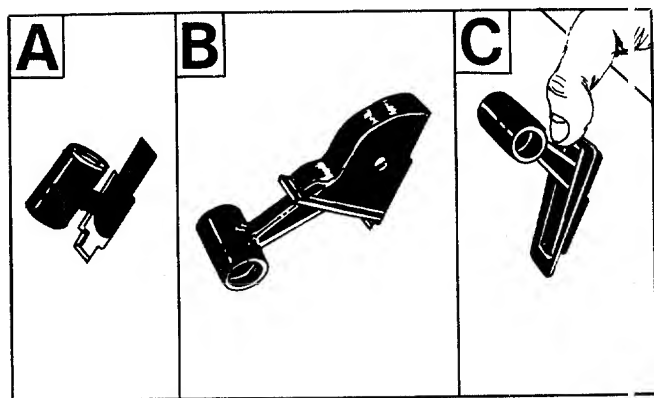


FIGURE 8

12. Assemble the throttle control to the handle panel as follows.
 - A. Hold the throttle control assembly beneath the handle panel. Turn the control sideways and insert the lever up through the wide portion of the slot on the handle panel. See figure 8A.
 - B. After the end of the lever is through the slot, turn and then tip the control forward as shown in figure 8B to slide it through the slot.

NOTE

The lever must be all the way to the back of the control housing as shown in figure 8B.

- C. Push the control back into the slot in the handle panel and press in place. Be certain the control is locked securely into the slot.

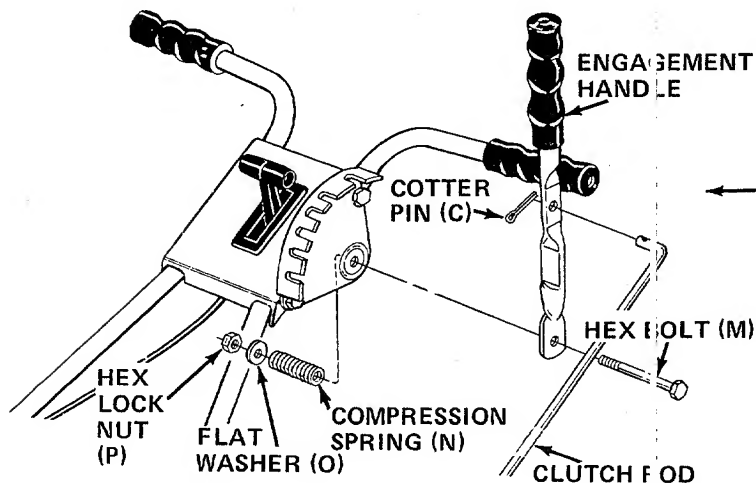


FIGURE 9

13. Place hex bolt (M) through bottom hole in engagement handle as shown in figure 9, then through hole in adjustment bracket.
14. Secure hex bolt with compression spring (N), flat washer (O) and hex lock nut (P) on the inside of the adjustment bracket.
15. Secure bent end of clutch rod half to engagement handle with cotter pin (C). See figure 9.

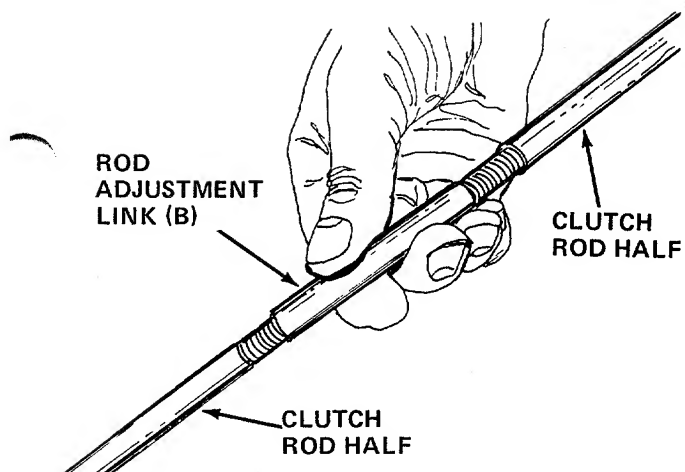


FIGURE 10

16. Thread rod adjustment link (B) onto the upper clutch rod half, using about half of the threads. See figure 10.

17. Thread the lower clutch rod half into the bottom of the rod adjustment link. See figure 10.

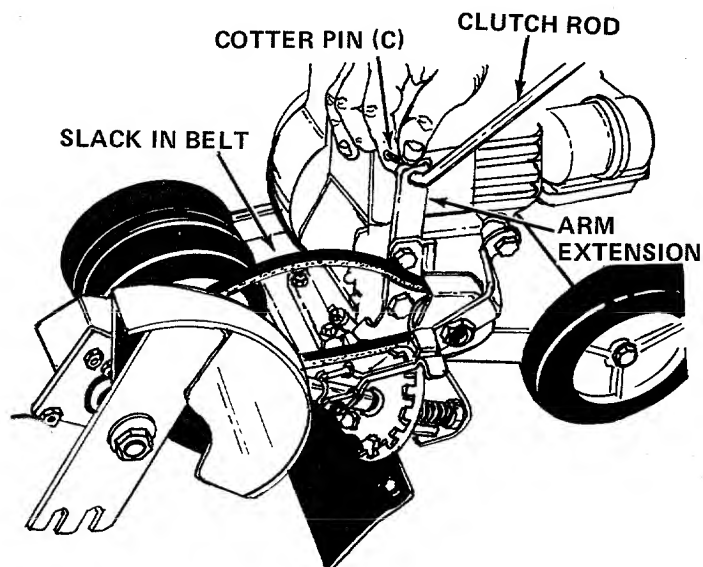


FIGURE 11

18. Pull the blade and guard assembly all the way back by hand until there is slack in the belt. See figure 11.

19. Secure the end of the lower clutch rod half to the arm extension on the pivot bracket with cotter pin (C). See figure 11.

20. Secure the throttle control cable to handles with two cable ties (I).

CONTROLS

THROTTLE CONTROL

The throttle control lever is located on the handle panel. It regulates the engine speed and stops the engine. See figure 12.

DEPTH CONTROL ADJUSTMENT

The engagement handle controls the clutching and declutching of the belt. To declutch, the handle is pulled back toward the operator. The farther forward the handle is pushed, the deeper the cut. To move the engagement handle, first move it to the left so the handle is out of the notch. See figure 12.

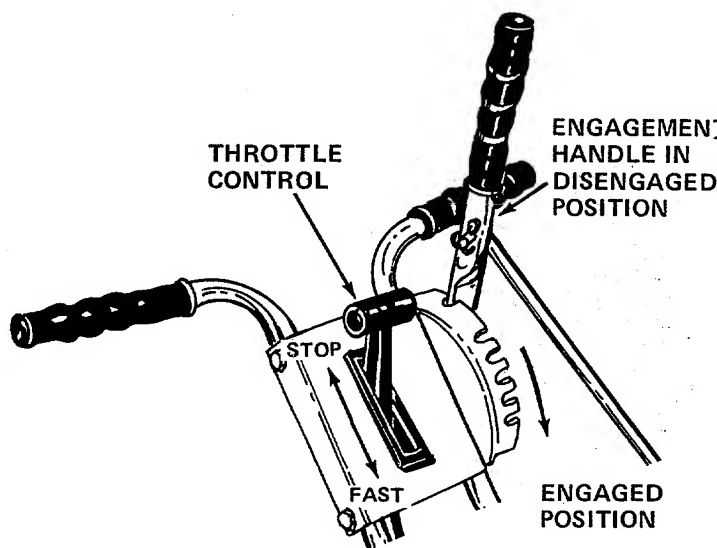


FIGURE 12



If belt slips when engagement handle is in the engaged position, lengthen the clutch rod by turning the rod adjustment link. Refer to figure 10.

BLADE PLANE ADJUSTMENT

The cutting blade can be adjusted to eight positions from vertical to horizontal. To adjust, release the adjustment lever on the pivot bracket and rotate the spindle housing. Place adjustment lever in notch desired. See figure 13.

When the blade is adjusted toward the horizontal position, the front wheels must also be adjusted. Remove the two hairpin cotters and slide the spacer and wheel to the right as shown in figure 14. Reinsert the hairpin cotters.



If the wheels are not adjusted, the blade will hit the left front wheel, causing the belt to slip.

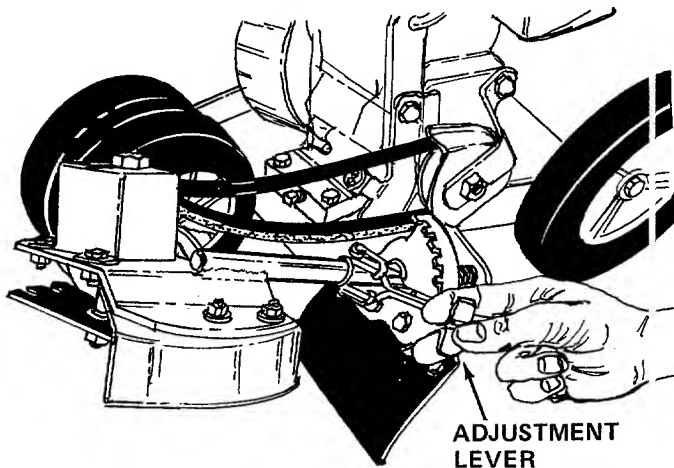


FIGURE 13

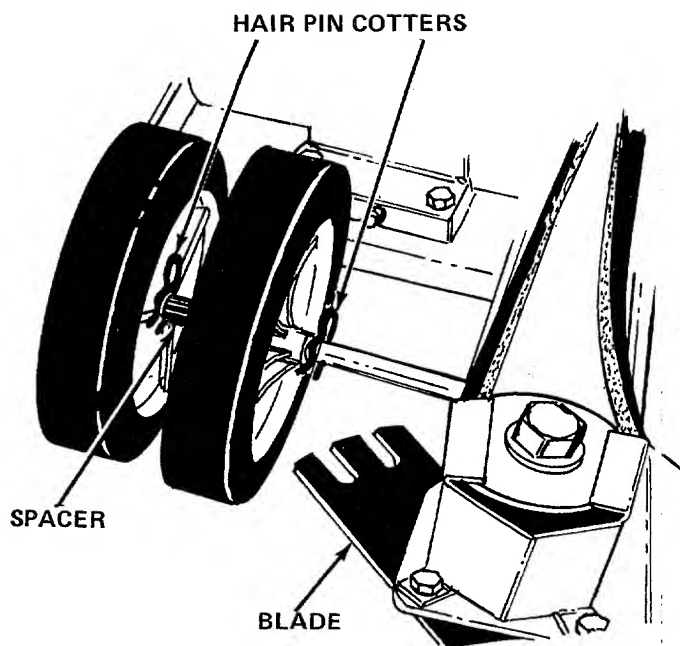


FIGURE 14

Become familiar with all the controls and adjustments before operating the edger so you can adjust it easily to a variety of cutting and trimming conditions. While the engine is running, **DO NOT ATTEMPT TO MAKE ANY ADJUSTMENTS** except with the throttle control.

OPERATION

1. Fill the crankcase with oil using a high quality detergent oil classified "For Service MS." Nothing should be added to the recommended oil. SUMMER - Use SAE 30. WINTER - (Below 40° F.) Use SAE 5W-20 or SAE 10W.

Place the engine level. Remove filler plug. **FILL THE OIL SUMP TO POINT OF OVERFLOW.** Pour slowly. See figure 15.

2. Fill the fuel tank with clean, fresh, lead-free, low-lead, or regular grade leaded gasoline. **DO NOT MIX OIL WITH GASOLINE.**

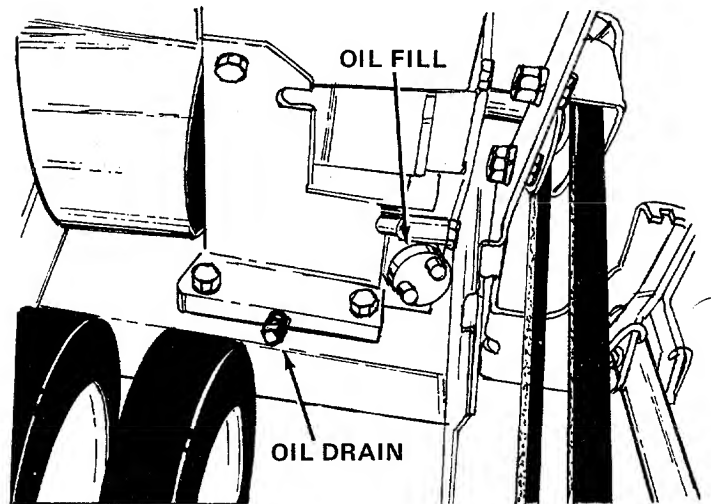


FIGURE 15

3. Move the engagement handle (depth control) back as far as it will go and place in the last notch. See figure 12.
4. Set the throttle control in "START" position.
5. Pull the choke knob out.



A warm engine may not require choking.

6. Grasp the starter handle and pull out the cord rapidly. Return it slowly to the engine. If the engine does not start after two pulls, move the throttle control to the "FAST" position.
7. After engine starts, push choke knob in gradually. To stop engine, move throttle control to "STOP" position. Disconnect spark plug wire and ground to prevent accidental starting while equipment is unattended.



CAUTION

Rotating cutting blade may throw objects causing personal injury. Always wear safety glasses or some other suitable eye protection at all times the engine is running. Keep area clear of bystanders and do not operate without guards in place.

OPERATING THE EDGER

1. Set the adjustment lever (refer to figure 12) in the second notch at the top to edge vertically. See figure 16.

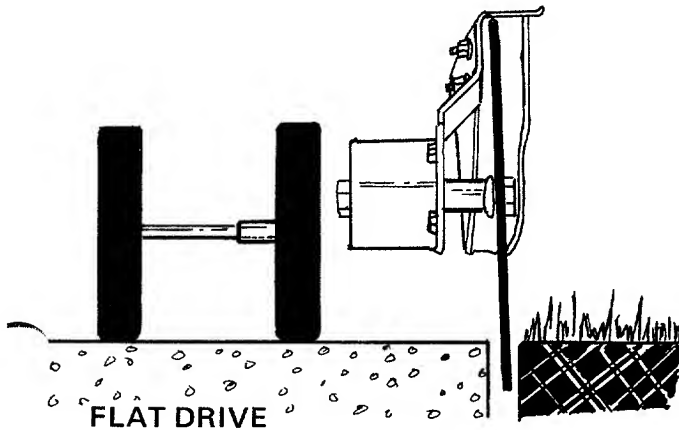


FIGURE 16

2. Set the adjustment lever (refer to figure 13) in the first notch at the top for trenching. See figure 17.

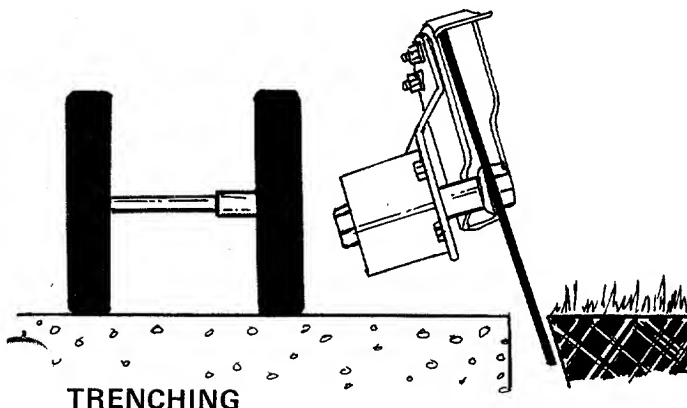


FIGURE 17

3. Move the front wheels all the way to the left when using the edger on a curb. See figure 18.

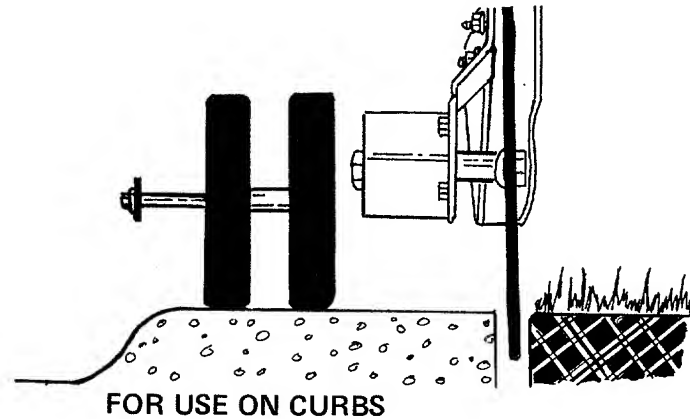


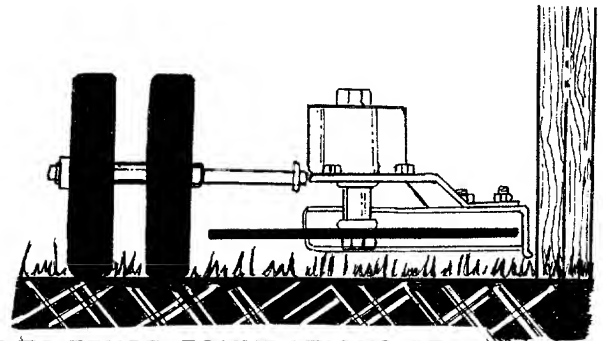
FIGURE 18

4. To operate the unit as a trimmer, move the adjustment lever and rotate the cutting blade 90°. See figure 19. Move the front wheels all the way to the right, as described in the Control section:



CAUTION

Do not adjust the blade guard with the engine running.



UP TO FENCE, FOUNDATIONS, ETC.

FIGURE 19

LUBRICATION

Wheels - The wheels are plastic and require no lubrication.

Engine - Refer to engine manual for lubrication instructions.

Cutting Head Bearings - The two ball bearings in the cutting head are lubricated and sealed at the factory and require no lubrication. Lubricate all other moving parts with engine oil.

Shaft - Lubricate the two bearings and under the compression spring on the shaft with light oil at least once a season. See figure 20.

MAINTENANCE



WARNING

Disconnect the spark plug wire and ground against the engine before performing any adjustment, repairs or maintenance.

BLADE REMOVAL

Use a wrench on both sides of the blade when removing it for replacement.

BELT REMOVAL

1. To remove the V-belt, remove the belt guard assembly at the engine pulley. Remove the hex nuts and lock washers. See figure 20.
2. Remove the belt guard at the spindle assembly by removing two hex bolts, lock washers and hex nuts. See figure 21.
3. Remove the old belt, and reassemble with a new belt, part number 754-0142.

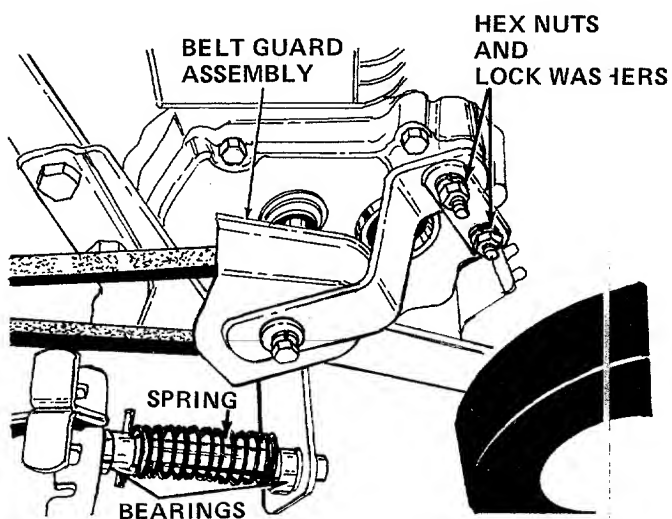


FIGURE 20

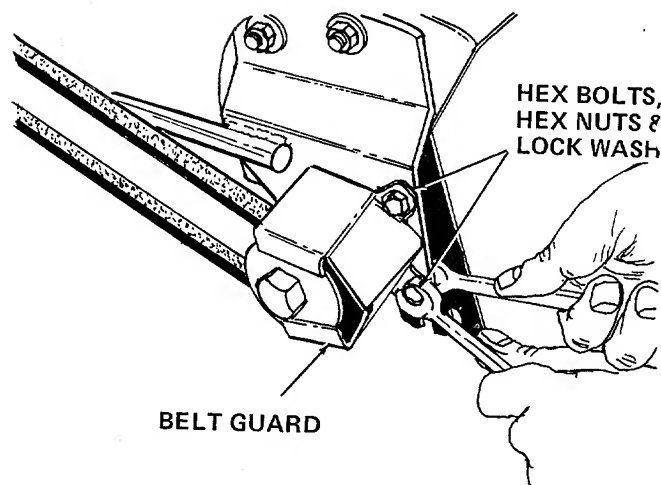


FIGURE 21

ENGINE OIL

Check oil level before starting engine and after every 5 hours of operation. Add oil as necessary to keep level full to point of overflowing. Before removing plug, clean area around plug to prevent dirt from entering oil fill opening. Refer to figure 15.

Change oil after first 5 hours of operation. Thereafter, change every 25 hours. Change oil while engine is warm. Oil may be drained thru oil drain plug. Crankcase capacity - 1-1/4 pints.

Refer to engine manual for complete instructions for care and maintenance of engine.

OFF-SEASON STORAGE

The following steps should be taken to prepare unit for storage.

1. Clean and lubricate unit thoroughly.
2. Refer to engine manual for correct engine storage instructions.
3. Coat unit's cutting blade with chassis grease to prevent rusting.
4. Store unit in a dry, clean area.



When storing any type of power equipment in an unventilated or metal storage shed, care should be taken to rustproof the equipment. Using a light oil or silicone, coat the equipment, especially springs and bearings.

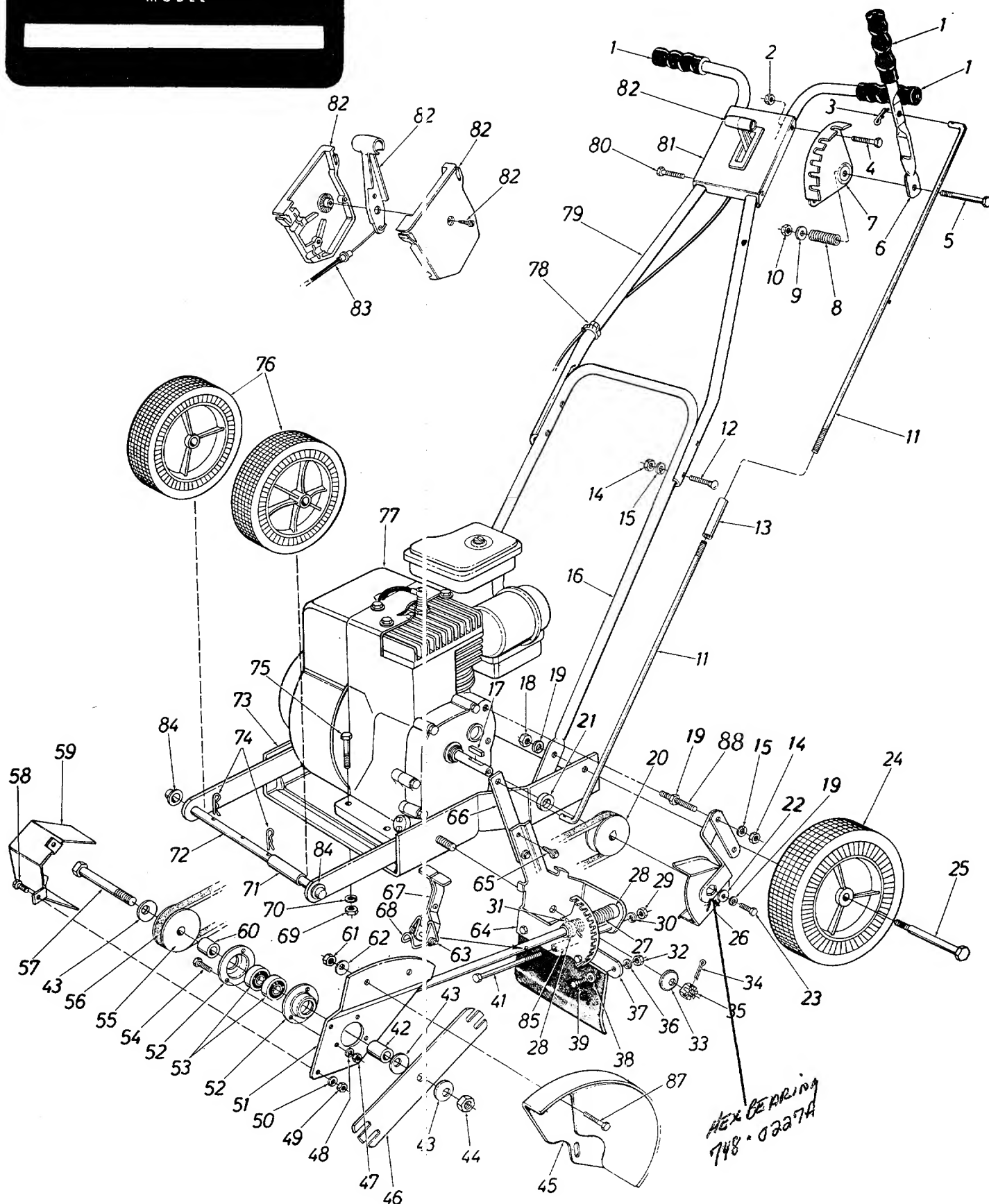
TROUBLE SHOOTING CHART

PROBLEM	CAUSE(S)	CORRECTIVE ACTION(S)
1. Engine fails to start.	A. Check fuel tank for gas. B. Spark plug lead wire disconnected. C. Faulty spark plug.	A. Fill tank if empty. B. Connect lead wire. C. Spark should jump gap between control electrode and side electrode. If spark does not jump, replace the spark plug.
2. Hard starting or loss of power.	A. Spark plug wire loose. B. Dirty air cleaner.	A. Connect and tighten spark plug wire. B. Clean air cleaner as described in engine manual.
3. Engine over-heats.	A. Carburetor not adjusted properly. B. Air flow restricted. C. Engine oil level low.	A. Adjust carburetor. See engine manual. B. Remove blower housing on engine and clean as described in the engine manual. C. Fill crankcase with the proper oil.
4. Excessive vibration at blade.	A. Spindle bent. B. Ball bearings worn out.	A. Replace spindle. B. Replace ball bearings.
5. Belt slips.	A. Belt worn or stretched. B. Clutch handle will not remain in clutch plate.	A. Adjust clutch rod or replace belt. B. Readjust spring tension at clutch handle.
6. Blade guard pivots forward, throwing dirt on operator.	Cam lever and carriage bolt at guard are loose.	Readjust guard, tighten cam lever and carriage bolt.

NOTE: For repairs beyond the minor adjustments listed above, please contact your local authorized service dealer.

Model 604

**IF YOU WRITE TO US ABOUT THIS ARTICLE
OR IF YOU ORDER REPLACEMENT PARTS AL-
WAYS MENTION THIS MODEL & SERIAL NO
MODEL**



Model 604

PARTS LIST FOR MODEL 604 EDGER

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	720-0120		Black Grip		45	781-0076		Guard Ass'y.	N
2	712-0107		Hex L.-Nut 1/4-20 Thd.		46	781-0080		Edger Blade	N
3	714-0115		Cotter Pin 1/8" Dia. x 1.00" Lg.*		47	712-0287		Hex Nut 1/4-20 Thd.*	
4	710-0106		Hex Bolt 1/4-20 x 1.25" Lg.*		48	736-0329		L.-Wash. 1/4" I.D.*	
5	710-0380		Hex Bolt 5/16-18 x 1.75" Lg.*		49	712-0287		Hex Nut 1/4-20 Thd.*	
6	749-0666		Engagement Handle	N	50	736-0329		L.-Wash. 1/4" I.D.*	
7	781-0081		Adjustment Bracket	N	51	781-0078		Spindle Plate Ass'y.	N
8	732-0369		Compression Spring .50" O.D. x 1.38" Lg.		52	15319		Bearing Housing 1-3/8" I.D.	
9	736-0264		Fl.-Wash. .344" I.D. x .62" O.D. x .063		53	741-0155		Ball Bearing .62" I.D. x 1.38" O.D.	
10	712-0158		Hex Cent. L.-Nut 5/16-18 Thd.		54	710-0258		Hex Bolt 1/4-20 x .62" Lg.*	
11	747-0498		Clutch Rod Half 3/8" Dia. x 18.25" Lg.		55	756-0449		3/8" "V"-Pulley 2" x 5/8" I.D.	
12	710-0111		Carriage Bolt 1/4-20 x 1.25" Lg.*		56	754-0142		"V"-Belt 3/8" x 31.2" Lg.	
13	750-0628		Rod Adjustment Link		57	710-0929		Hex Bolt 5/8-18 x 4.50" Lg.*	N
14	712-0287		Hex Nut 1/4-20 Thd.*		58	710-0289		Hex Bolt 1/4-20 x .50" Lg.*	
15	736-0329		L.-Wash. 1/4" I.D.*		59	781-0086		Belt Guard	N
16	09955		Lower Handle		60	750-0118		Sleeve .632" I.D. x .875" O.D. x .90" Lg.	
17	714-0122		Sq. Key 3/16" x 3/16" x .75" Lg.		61	712-0267		Hex Nut 5/16-18 Thd.*	
18	712-0798		Hex Nut 3/8-16 Thd.*		62	736-0242		Bell.-Wash. .345" I.D. x .88" O.D.	
19	736-0169		L.-Wash. 3/8" I.D.*		63	714-0121		Spring Pin Spir. 1/4" Dia. x 2.00" Lg.	
20	756-0327		Engine Pulley		64	781-0090		Pivot Bracket Ass'y.	N
21	750-0212		Spacer .75" I.D.		65	710-0600		Hex Wash. Hd. Self Tap Scr. 5/16-24 x .50" Lg.	
22	736-0258		Fl.-Wash. .385" I.D. x 1.0" O.D.		66	781-0075		Arm Extension	N
23	710-0152		Hex Bolt 3/8-24 x 1.0" Lg.*		67	781-0093		Adjustment Lever Ass'y.	N
24	734-0841		Rear Wheel Ass'y. 8 x 1.75		68	732-0188		Torsion Spring	
25	738-0108		Shoulder Bolt .498" Dia. x 1.45" Lg.		69	712-0267		Hex Nut 5/16-18 Thd.*	
26	13960		Belt Guard Ass'y.		70	736-0119		L.-Wash. 5/16" I.D.*	
27	732-0187		Compression Spring		71	750-0622		Spacer .50" I.D. x .62" O.D. x 1.62" Lg.	N
28	711-0379		Bushing		72	738-0613		Axle .50" Dia. x 8.75" Lg. (Front)	N
29	712-0267		Hex Nut 5/16-18 Thd.*		73	781-0083		Base Ass'y.	N
30	736-0119		L.-Wash. 5/16" I.D.*		74	714-0101		Hair Pin Cotter 1/2" Dia.	
31	715-0247		Spring Pin Spir. 3/16" Dia. x 1.00" Lg.		75	710-0442		Hex Bolt 5/16-18 x 1.50" Lg.*	
32	712-0287		Hex Nut 1/4-20 Thd.*		76	734-0840		Front Wheel Ass'y. 7 x 1.50	
33	736-0112		Bell.-Wash. .535" I.D. x 1.50" O.D.		77	-----		Engine	
34	714-0115		Cotter Pin 1/8" Dia. x 1.00" Lg.		78	726-0192		Cable Tie	
35	712-0114		Hex Slotted Nut 1/2-20 Thd.		79	749-0667		Upper Handle	
36	736-0329		L.-Wash. 1/4" I.D.*		80	710-0597		Hex Bolt 1/4-20 x 1.00" Lg.*	
37	781-0087		Flap Bracket	N	81	781-0092		Handle Support Plate	N
38	736-0342		Fl.-Wash. .25" I.D. x .75" O.D. x .030		82	831-0692		Throttle Control Box Ass'y.	
39	710-0289		Hex Bolt 1/4-20 x .50" Lg.*		83	746-0421		Throttle Control Wire 30" Lg.	
40	731-0725		Flap	N	84	726-0221		Push Cap 1/2" Dia.	
41	710-0402		Hex Bolt 5/16-18 x 4.5" Lg.*		85	711-0386		Spacer .386" I.D. x .510" O.D. x 3.765" Lg.	
42	750-0229		Spacer .635" I.D. x .88" I.D. x 1.030" Lg.		86	710-0938		Set Scr. 1/4-28 x .25" Lg.	
43	736-0317		Bell.-Wash. .630" I.D. x 1.25" O.D.		87	710-0118		Hex Bolt 5/16-18 x .75" Lg. Spec.	
44	712-0221		Hex Ins. L.-Nut 5/8-18 Thd.		88	711-0699		Stud 1/4-20 x 2.12" Lg.	

*For faster service order standard nuts, bolts, and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

(615—Red) When ordering parts, if color or finish is important, use the appropriate color code shown at left. (e.g. Red 10112 (615)).



NOTE

This instruction manual covers various models and all specifications shown do not necessarily apply to your model. Specifications subject to change without notice or obligation.

NOTE: The engine is not under warranty by the edger manufacturer . . . If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines—Gasoline."



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